

Having described the invention, we claim:

1. A system for predictively allocating bandwidth within a wireless network in accordance with a mission plan, said system comprising:

a first team member; and

a second team member,

said first team member predicting subsequent communication demand by said second team member in accordance with the mission plan, said second team member predicting subsequent communication demand by said first team member in accordance with the mission plan,

said first team member being allocated a bandwidth commensurate with a predicted need of said first team member and a predicted need of said second team member, said second team member being allocated a bandwidth commensurate with a predicted need of said first team member and said second team member.

2. The system as set forth in claim 1 wherein said first team member and said second team member share a common knowledge of an initial mission plan.

3. The system as set forth in claim 1 further including an encryption means for providing initial inputs to both said first team member and said second team member.

4. The system as set forth in claim 1 further including a random seed for input into a first random number generator of said first team member.

5. The system as set forth in claim 4 wherein said random seed is input into a second random number generator of said second team member.

6. The system as set forth in claim 5 wherein said random seed produces identical outputs by both said first random number generator and said second random number generator.

7. The system as set forth in claim 1 further including an initial algorithm for allocating subsequent communication usage.

8. The system as set forth in claim 7 further including a new algorithm for allocating subsequent communication usage, implementation of said new algorithm being caused by deviation of actual communication usage from said initial algorithm.

9. The system as set forth in claim 1 wherein said first team member continuously predicts actions and reactions of said second team member.

10. The system as set forth in claim 1 wherein said first team member communicates with said second team member to determine the accuracy of predictions of said first team member.

11. A computer program product for predictively allocating bandwidth within a network in accordance with a mission plan, said computer program product comprising:

a first instruction for predicting subsequent communication demand by a first team member in accordance with the mission plan;

a second instruction for predicting subsequent communication demand by a second team member in accordance with the mission plan;

a third instruction for allocating a first bandwidth commensurate with a predicted need of the first team member and a predicted need of the second team member; and

a fourth instruction for allocating a second bandwidth commensurate with a predicted need of the first team member and the second team member.

12. The computer program product as set forth in claim 11 further including a fifth instruction for inputting an initial mission plan to both the first team member and the second team member.

13. The computer program product as set forth in claim 11 further including a fifth instruction for encrypting communication by providing initial inputs to both the first team member and the second team member by a random number generator.

14. The computer program product as set forth in claim 11 further including a fifth instruction for inputting a random seed into a first security apparatus of the first team member.

15. The computer program product as set forth in claim 14 further including a sixth instruction for inputting the random seed into a second security apparatus of the second team member.

16. A method for predictively allocating bandwidth within a network in accordance with a mission plan, said method comprising the steps of:

predicting subsequent communication demand by a first team member in accordance with the mission plan;

predicting subsequent communication demand by a second team member in accordance with the mission plan;

allocating a first bandwidth commensurate with a predicted need of the first team member and a predicted need of the second team member; and

allocating a second bandwidth commensurate with a predicted need of the first team member and the second team member, the sum of the first bandwidth and the second bandwidth being less than or equal to an available amount of bandwidth.

17. The method as set forth in claim 16 further including the step of producing identical outputs by a first random number generator of the first team member and a second random number generator of the second team member.

18. The method as set forth in claim 16 further including the step of allocating subsequent communication usage of the first and second team members by an initial algorithm.

19. The method as set forth in claim 18 further including the step of allocating subsequent communication usage of the first and second team members by a new algorithm, implementation of the new algorithm being caused by deviation of actual communication usage from the initial algorithm.

20. The method as set forth in claim 16 further including the step of continuously predicting actions and reactions of the second team member by the first team member, the first team member communicating with the second team member to determine the accuracy of predictions of the first team member.